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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,022	10/15/2001	Albert Gordon Greenberg	104975.01	2698
26652	7590	03/25/2005	EXAMINER	
AT&T CORP. P.O. BOX 4110 MIDDLETOWN, NJ 07748			ABELSON, RONALD B	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,022

Applicant(s)

GREENBERG ET AL.

Examiner

Ronald Abelson

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 2-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/15/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

1. Newly submitted claims 8-20 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: newly submitted claims are directed to fault detection and recovery in an optical device within a communication's node (see class 398 subclass 2).

Claim 8 also refers to determining a detected error rate in a video stream and ignoring the detected error rate until it exceeds a predetermined threshold. These limitations were not part of the originally presented invention. Claim 16 refers to determining a bit error via low-level error detection and communicating the bit error to an IP Layer via an application-programming interface. These limitations were not part of the originally presented invention.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 8-20 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

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Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cao (US 20020181485) in view of Helles (US 6,639,895), and further in view of Judy (US 5,905,838).

Cao teaches a method of restoring communications (fig. 1, [0011]).

Regarding claim 1, Cao teaches attempting to restore communications by only communicating with at least one other communication node forwarding significant amounts of data (propagates information to source router, pg. 2 [0011] lines 11 - 22). Note, the router detecting the failure may be the sink router.

Cao is silent on within a failed communication node, detecting a failed device.

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Helles teaches on within a failed communication node, detecting a failed device (fig. 1, box 70, 100, col. 4 lines 23-34, 44-47).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Cao by replacing each individual router with a node consisting of two routers wherein one router is a backup router perform rerouting in the event the primary router is faulty. This modification can be performed according to the teachings of Helles. This would improve the system since if data can be rerouted bypassing the faulty router, upstream and downstream nodes would not have to be notified.

Although the combination teaches optical communications (Cao: Sonet, [0011]), the combination is silent on the communications node contains an optical device.

Judy teaches a communications node containing an optical device (fig. 12 box 122, col. 13 lines 9-13).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Cao and Helles by replacing the routers within each node with optical routers. This would improve the system by permitting the system to be used for optical communications.

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Regarding claim 2, attempting to restore communications by only communicating with communications nodes forwarding significant amounts of data is limited to communicating with those communications nodes impacted by the communications to be restored (propagates information to source routers, pg. 2 [0011] lines 11 - 22).

Regarding claim 3, the communications node uses at least one of a routing table (Cao: forwarding table, [0023]), at least one cross connect mapping and at least one logical connection between communications nodes to attempt to restore communications.

Regarding claim 4, the communications node restores communication using at least one of managing peer interfaces, managing external interfaces, managing internal resources (Helles: failure state configuration, col. 6 lines 25-46), and managing faults at the network edge.

Regarding claim 5, the communications node uses at least one of internal or external gateway protocols, OSPF (Cao: pg. 3 [0023]), border gateway protocol and IS-IS signals to discover a network topology.

Regarding claim 6, a network using the method of claim 1 (Cao: Sonet, pg. 2 [0011] lines 11-13).

Regarding claim 7, the communications node communicates with other communications nodes using at least one of signaling via IP packets (Cao: IP, pg. 2 [0011] lines 1-4), RSVP and CR-LDP.

Prior Art of Record

4. Elahmadi teaches a routing table in a Sonet environment for rerouting data in the event of a fault (col. 4 lines 32).

Response to Arguments

5. Applicant's arguments filed 2/4/2005 have been fully considered but they are not persuasive.

Regarding amended independent claim 1, the examiner agrees with the applicant that the combination of Cao, Helles, and Dupont do not expressly nor inherently teach nor suggest, "within a failed communications node, detecting a failed optical device" (applicant: pg. 7 2nd paragraph). Therefore, an updated search was performed.

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Regarding new independent claim 8, the examiner agrees with the applicant that none of the references of record alone or in combination disclose or suggest "switching from a failed optical device to a backup optical device responsive to the detected error rate exceeding the predetermined threshold" (applicant: pg. 8). However, as stated above, this limitation directed to an invention that is distinct from the invention originally claimed.

Regarding new independent claim 16, the examiner agrees with the applicant that none of the references of record alone or in combination disclose or suggest "switching from a failed optical device to a backup optical device responsive to the single bit error" (applicant: pg. 8). However, as stated above, this limitation directed to an invention that is distinct from the invention originally claimed.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ronald Abelson
Examiner
Art Unit 2666



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3/17/05